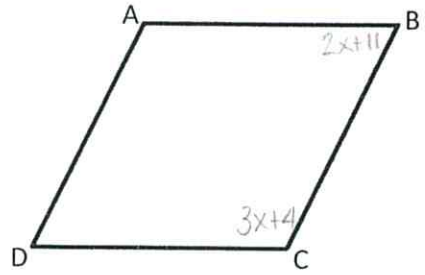


KEY

Geometry Review

1) The $m\angle ABC = 2x + 11$ & the $m\angle BCD = 3x + 4$. Solve for x and then find $m\angle ABC$.



$$2x + 11 + 3x + 4 = 180$$

$$5x + 15 = 180$$

$$5x = 165$$

$$x = 33$$

$$2(33) + 11$$

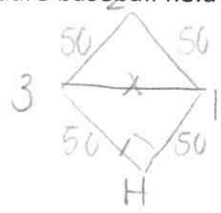
$$66 + 11$$

$$77^\circ$$

2) What does bisect mean?

Cuts into 2 \cong pieces

3) A square baseball field has a length of 50 ft from Home base to 1st base. How far is 1st from 3rd?



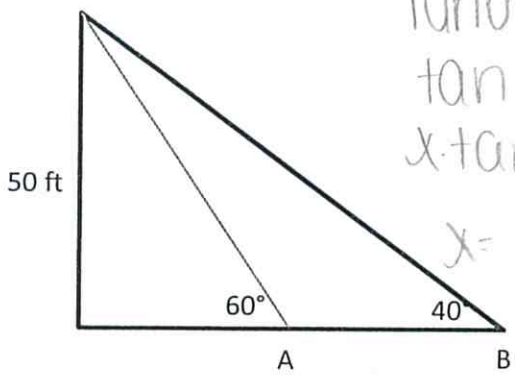
$$0^2 + b^2 = c^2$$

$$50^2 + 50^2 = c^2$$

$$2500 + 2500 = c^2$$

$$\sqrt{5000} = \sqrt{c^2}$$

4) Find the distance from A to B.



$$\tan \theta = o/a$$

$$\tan 60 = 50/x$$

$$x \cdot \tan 60 = 50$$

$$x = 50 / \tan 60$$

$$x = 28.8$$

$$\tan \theta = o/a$$

$$\tan 40 = 50/x$$

$$x \cdot \tan 40 = 50$$

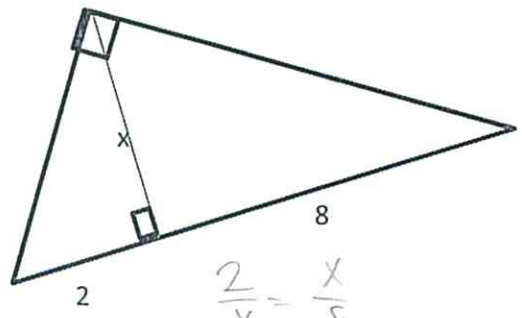
$$x = 50 / \tan 40$$

$$x = 59.6$$

$$59.6 - 28.8 = 30.8 \text{ ft}$$

5) True or False: $5\frac{2}{3} = 5.666667$ True

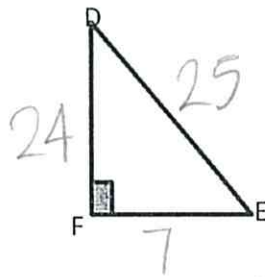
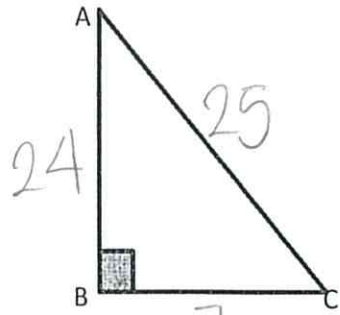
6) Solve for x.



$$\frac{2}{x} = \frac{x}{8}$$

$$\sqrt{x^2} = \sqrt{16} \rightarrow x = 4$$

7) Given that the $\sin A = 7/25$



$$a^2 + b^2 = c^2$$

$$7^2 + b^2 = 25^2$$

$$49 + b^2 = 625$$

$$\sqrt{b^2} = \sqrt{576}$$

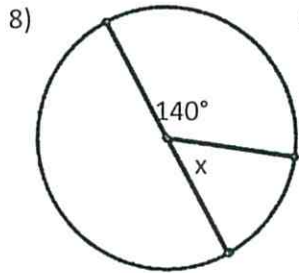
$$b = 24$$

Find

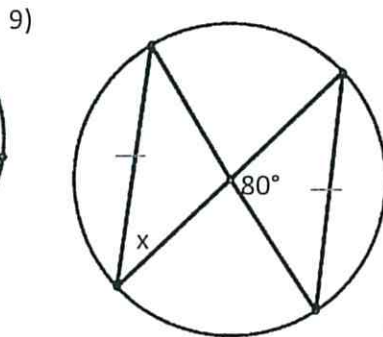
$$\cos A = \frac{24}{25}$$

$$\sin D = \frac{7}{25}$$

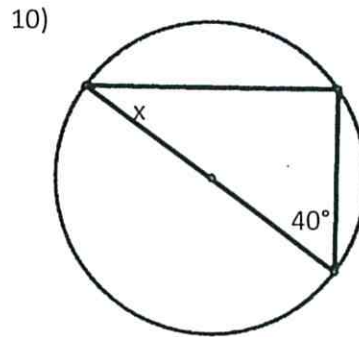
$$\tan E = \frac{24}{7}$$



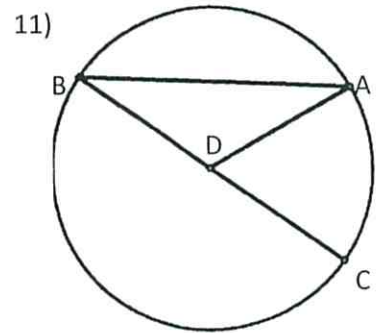
$$x = 40^\circ$$



$$x = 50^\circ$$



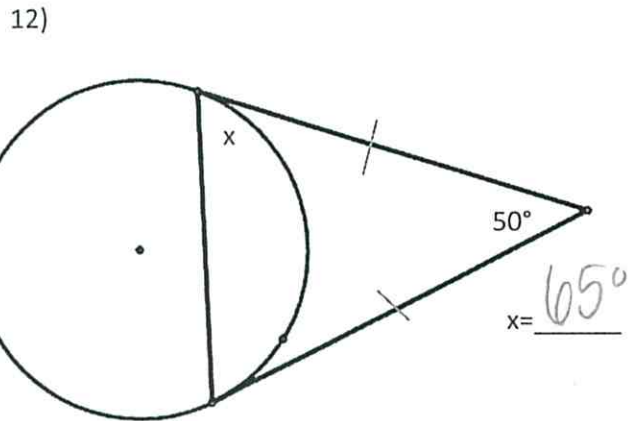
$$x = 50^\circ$$



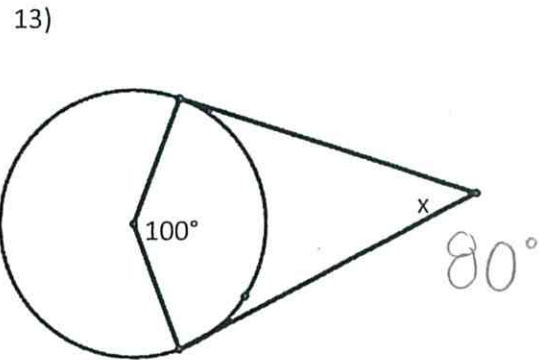
Arc AB = 150°

$$m\angle ABC = 15^\circ$$

$$m\angle ADC = 30^\circ$$



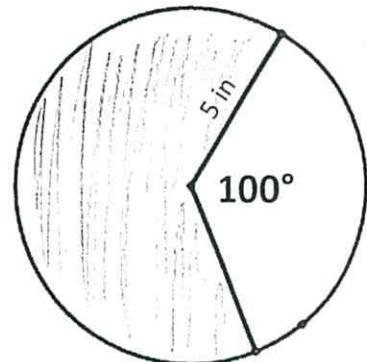
$$x = 65^\circ$$



$$x = 80^\circ$$

14) Find the area of the shaded region. Use the formula $A = \frac{\theta}{360} \pi r^2$

$$\frac{100}{360} \pi \cdot 25 = 218 \text{ in}^2$$



15) To convert from ft^2 to yd^2 just divide by 9.